

**IN-CIRCUIT CONFIGURATION ARCHITECTURE WITH CONFIGURATION  
ON INITIALIZATION FUNCTION FOR EMBEDDED CONFIGURABLE  
LOGIC ARRAY**

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**ABSTRACT**

[0061] A system-on-a-chip integrated circuit that includes a configurable logic array,  
a processor core, and a memory adapted to store instructions for a mission function, and  
instructions for a configuration load function used to load configuration data on to the  
integrated circuit via an input port on the integrated circuit from an external source. The  
10 processor fetches and executes the instructions from the memory. Configuration data  
received using the configuration load function is used to configure the configurable logic  
array. Instructions are stored in the memory for an initialization function used to transfer  
the configuration data to the programmable configuration points within the configurable  
logic array in response to an initialization event